In the Claims

CLAIMS

Claims 1-27 (Canceled).

28.   (New) A method for producing a lens, comprising:

providing a lens to correct aberrations of an eye of an ametropic person; and

modifying a surface of the lens to correct aberrations of lower order, wherein the modifying further corrects a percentage of at least one aberration of higher order.

29.   (New) The method as claimed in claim 28 further comprising another modifying of at least a portion of the same surface of the lens to increase the percentage of correction of the at least one aberration of higher order.

30.   (New) The method as claimed in claim 28, wherein a spherical aberration is corrected as the at least one aberration of higher order.

31.   (New) The method as claimed in claim 28, wherein a coma is corrected as the at least one aberration of higher order.

32.   (New) The method as claimed in claim 28, wherein a trefoil aberration is corrected as the at least one aberration of higher order.

33.   (New) The method as claimed in claim 28, wherein values required for correcting at least one of the lower and higher aberrations are determined by measuring visual acuity by implementing at least one of the following methods: by determining refraction; by measuring a wavefront; and by skiaskopy.

34.   (New) The method as claimed in claim 33, wherein said wavefront is measured with a Hartmann-Shack sensor.

35.   (New) The method as claimed in claim 28, wherein a size of a pupillary aperture of the eye is determined for correcting said aberrations, in particular said aberrations of higher order.

36. (New) The method as claimed in claim 28, wherein at least 50%, preferably at least 75%, of the at least one aberration of higher order is compensated solely by a correction of said aberrations of lower order such as sphere, cylinder and axis.

37. (New) The method as claimed in claim 28, wherein at least 85% of the at least one aberration of higher order is compensated solely by a correction of said aberrations of lower order comprising at least one of: sphere, cylinder and axis.

38. (New) The method as claimed in claim 28, wherein a region of highest visual acuity is formed by introducing at least one aspheric surface.

39. (New) The method as claimed in claim 28, wherein a region of highest visual acuity is formed by introducing at least one atoric surface.

40. (New) The method as claimed in claim 28, wherein a region of highest visual acuity is formed by introducing at least one free form surface.

41. (New) The method as claimed in claim 28, wherein a region in said lens is corrected for an infinite object distance.

42. (New) The method as claimed in claim 28, wherein a region in said lens is corrected for a finite object distance.

43. (New) The method as claimed in claim 28, wherein a transition of a region with highest visual acuity into a region with slightly reduced visual acuity is performed via an edge.

44. (New) A method for producing a lens, comprising:

providing a spectacle lens wherein central aberrations of an eye to be corrected of an ametropic person, such as sphere, cylinder and axis, are compensated, wherein at least one refracting surface of said lens is configured in a way that for at least one direction of view, both a dioptric correction of the ametropia is performed and aberrations of higher order whose effects on the visual acuity and/or contrast viewing are a function of a size of a pupillary aperture of said eye to be corrected, are corrected by said lens; and

wherein at least 50%, preferably at least 75%, of said aberrations of higher order are compensated solely by a correction of said central aberrations such as sphere, cylinder and axis.

45.   (New) The method as claimed in claim 44, wherein at least 85% of said aberrations of higher order are compensated solely by a correction of said central aberrations comprising at least one of: sphere, cylinder and axis.

46.   (New) The method as claimed in claim 44, wherein the size of the pupillary aperture of the eye is determined for correcting said aberrations, in particular said aberrations of higher order.